## **Firestone Building Products**

## **Environmental Improvement Project Results**

**Project #1:** Increase the amount of dust brick recycling over 2009 levels.

## **Measurements:**

	(2006)	(2007)	(2008)	(2009)	(2010)	(2011)	(2012)	Performance Goal (2013)	Units
Actual Total Nonhazardous Dust Brick Waste Generation	133.75	154.42	152.08	91.94	77.93	94.6	120.5		Tons
Total Nonhazardous Dust Brick Waste Recycled	0.0	0.0	13.65	12.43	71.73	86%	25%	90% of generation	Tons
			Current Year Board Feet of Production = 109,402,596						

Dust brick generation is by far the largest nonhazardous waste generation item at this location. Historically dust bricks have been disposed of in a landfill. In order to reduce our environmental footprint it has been desirable to find an alternate use for the dust bricks and reduce or eliminate placing them in a landfill. Results from targeted goal for 2012 to increase recycling/incineration of dust bricks were not successful. 59,852 lbs. (29.9 tons) of dust brick waste was recycled during 2012 as compared to 162,820 lbs. (81.4 tons) during 2011. As a percentage 25% of dust bricks generated were recycled during 2012 versus 86.0% of dust bricks generated in 2011. Failure to meet goal was due to our recycle partner's inability, during much of 2012, to take the volume of dust bricks generated. However, our partner is working to develop additional absorbent material sales streams and has already increased the volume of dust bricks being accepted. We continue to work closely with our partner in effort to increase recycling of dust bricks to 100% of generation, as well as explore other recycle avenues.

Benefit to the environment for the year: Recycling of 29.9 tons of dust bricks that would have otherwise gone into the land-fill. In addition to recycling of dust bricks, this facility recycled 68,476 lbs. (34.2 tons) of office paper, cardboard, plastic, wood pallets, metal, and facer/bag cores. Total recycling for 2012 was 128,328 lbs. (64.1 tons). This compares with 222,823 lbs. (111.4 tons) recycled in 2011. This represents a 43% reduction in recycling for 2012, solely due to dust bricks.

Benefit or savings to the company: The Company's effort toward reduction of our environmental foot-print does result in slight cost savings due to elimination of part of the cost to land-fill a portion of generated dust bricks. Most of the benefit comes purely from the knowledge we are reducing the footprint to our environment and to our children's future. Efforts to increase recycling of waste streams are on-going.

Target Goal for 2013: Increase recycling of dust bricks to 90% of generation.

**Project #2:** Reduce use of hazardous chemicals used in manufacturing process.

## **Measurements:**

	Baseline (2005)	Year 1 (2006)	Year 2 (2007)	Year 3 (2008)	Year 4 (2009)	Year 5 (2010)	Year 6 (2011)	Year 7 (2012)	Uni ts	
Actual Quantity (per year)	16,628,688	16,338,285	18,889,161	19,723,203	12,536,632	10,673,007	12,288,036	15,482,064	Lbs	
Normalizing Factor	1.0	1.05	1.15	1.22	0.77	0.64	0.77	0.98	Lbs	
Normalized Quantity (per year)	16,628,688	15,560,271	16,425,357	16,166,560	16,281,340	16,676,573	15,958,488	15,798,024	Lbs	
Basis for Normalizing Factor			Board Feet of Production Baseline Board Feet of Production = 111,474,310 Current Year Board Feet of Production = 109,402,596							

Activities related to this commitment or, if relevant, any circumstances that delayed progress this year: For 2012 we were successful in reducing the amount of raw chemicals consumed per unit produced. Production volume increased 27% from 2011 to 2012; however, chemical usage (normalized to 2005) decreased by 1.0%. This is a significant decrease in raw chemical usage. We exceeded our goal by 0.5%.

Benefit to the environment for the year: Reduced chemical usage in 2012 translates into more efficient conversion to product reducing emissions from the process and minimizing waste generation.

Benefit or savings to the company: Continued cost savings to the company via reduction of chemicals purchased per unit manufactured and overall cost reduction. This reduces the environmental foot-print of our facility through reductions in the use of natural resources required to manufacture chemicals.

Target Goal for 2013: Additional 0.5% reduction in the usage of chemicals per unit manufactured.